

Box Patent Application  
Commissioner of Patents  
and Trademarks  
Washington, DC 20231

## NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Catherine Christensen, Ricardo Gonzalez, David Hamilton and Daina Pupons Wickham

For (title): COLOR AND SYMBOL CODED VISUAL CUES FOR RELATING SCREEN ITEMS TO EACH  
OTHER

## 1. Type of Application

This new application is for a(n) (check one applicable item below):

- ☒ Original  
☐ Design  
☐ Plant

NOTE: If one of the following 3 items apply them complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.

- ☐ Divisional  
☐ Continuation  
☐ Continuation-in-part (CIP)

## 2. Benefit of Prior U.S. Application(s) (35 USC 120)

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

- ☐ The new application being transmitted claims the benefit of prior U.S. application(s) and enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

## 3. Papers Enclosed Which Are Required For Filing Date Under 37 CFR 1.53(b) (Regular) or 37 CFR 1.153 (Design) Application

- 11 Pages of specification  
8 Pages of claims  
1 Pages of Abstract

- 5   Sheets of drawings
- Formal
- X   Informal

NOTE: "Identifying indicia such as the serial number, group and unit, title of the invention, attorney's docket number, inventor's name, number of sheets, etc., not to exceed 2 3/4 inches (7.0cm in width may be placed in a centered location between the side edges within three fourths inch (19.1mm) of the top edge. Either this marking technique on the front of the drawing or the placement, although not preferred, of this information and the title of the invention on the back of the drawings is acceptable." Proposed 37 CFR 1.84(1). Notice of March 9, 1988 (1090 O.G. 57-62).

#### 4. Additional Papers Enclosed

- Preliminary Amendment
- X   Information Disclosure Statement (37 CFR 1.98)
- X   Form PTO-1449
- X   Citations (6 References)
- Declaration of Biological Deposit
- Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.
- Authorization of Attorney(s) to Accept and Follow Instructions from Representative
- Special Comments
- Other

#### 5. Declaration or Oath

- X   Enclosed  
executed by (check all applicable boxes)
- X   inventor(s).
- legal representative of inventor(s). 37 CFR 1.42 or 1.43
- joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.
- this is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See Item 13 below for fee.
- Not Enclosed
- Application is made by a person authorized under 37 CFR 1.41(c) on behalf of all the above named inventor(s). (The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed

subsequently).

NOTE: It is important that all the correct inventor(s) are named for filing under 37 CFR 1.41(c) and 1.53(b).

☐ Showing that the filing is authorized. (Not required unless called into question. 37 CFR 1.41(d).

## 6. Inventorship Statement

**WARNING:** If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.

The Inventorship for all the claims in this application are:

☒ the same

or

☐ are not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made.

☐ is submitted

☐ will be submitted

## 7. Language

☒ English

☐ non-English

☐ The attached translation is a verified translation. 37 CFR 1.52(d).

## 8. Assignment

☒ An assignment of the invention to International Business Machines Corporation

☒ is attached. A separate "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION"

☐ FORM PTO 1595 is also attached.

☐ will follow.

NOTE: "If an assignment is submitted with a new application, send two separate letters-one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).

**9. Certified Copy (35 USC 119)**

Certified copy(ies) of application(s):

(country)	(appln. no.)	(filed)
(country)	(appln. no.)	(filed)

from which priority is claimed

\_\_\_ is/are attached.

\_\_\_ will follow.

**10. Fee Calculation (37 CFR 1.16)****A. \_\_\_ Regular application**

CLAIMS AS FILED						
Number filed			Num. Extra		Rate	Basic Fee \$760.00
Total Claims	22	-20=	2	X	\$18.00	\$36.00
Independent Claims	6	-3=	3	X	\$78.00	\$234.00
Multiple dependent claim(s), if any					\$270.00	\$0.00

\_\_\_ Amendment canceling extra claims enclosed.

\_\_\_ Amendment deleting multiple dependencies enclosed.

\_\_\_ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing, they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calculation

\$ 1030.00

**B. \_\_\_ Design application**  
(\$330.00--37 CFR 1.16(f))

Filing Fee Calculation

\$ \_\_\_\_\_

**C. \_\_\_ Plant application**  
(\$540.00--37 CFR 1.16(9))

Filing Fee Calculation

\$ \_\_\_\_\_

**11. Small Entity Statement(s)**

\_\_\_\_ Verified Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is/are attached.

Filing Fee Calculation (50% of A, B or C above) \$\_\_\_\_\_

### 12. Request for International-Type Search (complete, if applicable)

\_\_\_\_ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

### 13. Fee Payment Being Made At This Time

\_\_\_\_ Not Enclosed

\_\_\_\_ No filing fee is to be paid at this time. (This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.)

X Enclosed

X basic filing fee \$ 1030.00

X recording assignment  
(\$40.00; 37 CFR 1.21(h)) \$ 40.00

\_\_\_\_ petition fee for filing by other than all the  
inventors or person on behalf of the inventor  
where inventor refused to sign or cannot be  
reached. (\$130.00; 37 CFR 1.47 and 1.17(h)) \$ \_\_\_\_\_

\_\_\_\_ for processing an application with a  
specification in a non-English language.  
(\$130.00; 37 CFR 1.52(d) and 1.17(k)) \$ \_\_\_\_\_

\_\_\_\_ processing and retention fee  
(\$130.00; 37 CFR 1.53(d) and 1.21(l)) \$ \_\_\_\_\_

\_\_\_\_ fee for international-type search report  
(\$35.00; 37 CFR 1.21(e)) \$ \_\_\_\_\_

**Total fees enclosed** \$ \_\_\_\_\_

### 14. Method of Payment of Fees

X Check in the amount of \$ 1070.00.

\_\_\_\_ Charge Account No. 12-0010 in the amount of \$ \_\_\_\_\_. A duplicate of this transmittal is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid.

**15. Authorization to Charge Additional Fees**

**WARNING:** If no fees are to be paid on filing, the following items should not be completed.

**WARNING:** Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

  X   The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 12-0010 :

       37 CFR 1.16(a), (f) or (g) (filing fees)

       37 CFR 1.16(b), (c) or (d) (presentation of extra claims)

  X   Any deficiencies in the fees provided.

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency, it might be best not to authorize the PTO to charge additional fees, except possibly when dealing with amendments after final action.

       37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application.)

       37 CFR 1.17 (application processing fees)

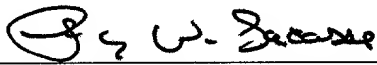
       37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b)).

**16. Instruction As To Overpayment**

  X   credit Account No. 12-0010

       refund

Reg. No. 34,368  
Tel. No. (703) 415-1015

  
SIGNATURE OF APPLICANT'S REPRESENTATIVE  
Randy W. Lacasse

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2001 Jefferson Davis Hwy, Suite 806  
Arlington, VA 22202

       Incorporation by reference of added pages

Check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

\_\_\_ Plus added pages for new application transmittal where benefit of prior U.S. application(s) claimed.

Number of pages added \_\_\_\_\_

X Plus added pages for papers referred to in Item 4 above

Number of pages added 2

\_\_\_ Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added \_\_\_\_\_

\_\_\_ **Statement Where No Further Pages Added**

(If no further pages form a part of this transmittal then end this transmittal with this page and check the following item)

\_\_\_ This transmittal ends with this page.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**APPLICATION FOR LETTERS PATENT**

**INVENTORS:** Catherine Christensen, Ricardo Gonzalez, David Hamilton, Daina Pupons  
Wickham

**TITLE:** Color and Symbol Coded Visual Cues for Relating Screen Items to each other



## BACKGROUND OF THE INVENTION

### Field of Invention

5 The present invention relates generally to the field of graphical user interfaces. More specifically, the present invention relates to using persistent visual cues to the user throughout related graphical user interfaces.

### Related Materials

This application is related to the following commonly owned co-pending application which is hereby incorporated by reference:

10 Color & Symbol Coded Visual Cue for Relating Screen Menu to Executed Process, US application number 08/954,852, filed 10/21/97.

### Discussion of Prior Art

15 The prior art is replete with examples of using icons in various schemes to present visual information related to a particular object. Many applications contain visual indicators that relate icons for existing objects of a particular type to an icon for creating new objects of that type. One known method is to superimpose the image of a star on the upper left-hand corner of an "existing" icon. For example, the icon for a document in Lotus WordPro® 96 is a blank page with the upper right-hand corner turned down, while  
20 the icon for a new document is the same but with a star in the upper left-hand corner.

This metaphor is not carried any further than this, however; specifically, it is not carried into related graphical user interfaces or user assistance programs, e.g. wizards. What the prior art has failed to teach is a method of using persistent objects and color throughout interfaces belonging to a single family or related family.

5           Modern object-oriented graphical user interfaces display a large number of objects, toolbars, properties sheets, and wizards. Often times users have trouble determining what buttons will do before they use them. Interfaces do not provide consistent and redundant visual cues (i.e., graphics/spatial and color/hue) that allow users the ability to relate objects on their desktops to the controls and displays that affect them.

10           The present invention makes it easier to relate an object represented on the user interface with its associated controls and displays based on basic human pattern matching abilities. The Windows®95 Explorer toolbar has an icon for the “map network drive” function. However, the tool bar icon fails to share the color or the graphic of the object that will show up on your desktop after you map a network drive. Additionally, the  
15           windows that are displayed to gather user input for setting the parameters for mapping a drive do not have a matching graphic or color cues. Matching the color and graphic would help users: 1) find the toolbar button to start the interaction, 2) track the interaction during the sequence of windows that gather the parameters, and 3) recognize  
20           the resulting mapped drive when it appeared on their desktop at the completion of the

interaction.

5 The patent to Hoppe et al. (5,515,488), assigned to Xerox Corporation, provides for a *Method and Apparatus for Concurrent Graphical Visualization of a Database Search and its Search History*. A graphical representation of a query to a database enables creation and traversal of the search history. Relationships between objects are noted graphically. The reference, however, appears to be focused on nesting techniques.

10 The patent to West (5,740,440), assigned to Objective Software Technology, provides for a *Dynamic Object Visualization and Browsing System*. An animated graphical display reflects the status of selected objects and their interrelationships.

15 The patent to Hahn et al. (5,751,287), assigned to Documagix, Inc., provides for a *System for Organizing Document Icons with Suggestions, Folders, Drawers, and Cabinets*. Each drawer can be marked with a graphic icon for easier visual identification. The drawer, and associated text can also be colored. Folders can similarly be named, described and keyed with a color.

20 The patent to Corda et al. (5,758,122), assigned to The United State of America, provides for an *Immersive Visual Programming System*. During execution of a compiler, the flow of data objects and the interaction among the data objects is visually displayed

to the user. Objects may retain some color aspects.

5 The patent to Bloomberg (5,765,176), assigned to Xerox Corporation, provides for *Performing Document Image Management Tasks Using an Iconic Image having Embedded Encoded Information*. Iconic versions of pages or sections of text are used to organize, in reduced size, a plurality of embedded text objects. Bloomberg further describe general methods of using color. Bloomberg, however, discusses watermarking as a way to ensure data integrity, not to provide visual cues as to related family or interface objects.

10 The patent to Caid et al. (5,794,178), assigned to HNC Software, Inc., provides for a *Visualization of Information Using Graphical Representations of Context Vector Based Relationships and Attributes*. Caid discloses visualization of textual information by translating context vectors into visual and graphical representations. General teachings are provided to 3D icons with a specific shape, size, color, texture and movement.

15 Whatever the precise merits, features and advantages of the above cited references, none of them achieves or fulfills the purposes of the present invention as described in the detailed description that follows.

### SUMMARY OF THE INVENTION

The present invention provides an initial icon and color scheme to represent a particular application. As a user traverses related objects belonging to the same family, the initial icon and color scheme is persistent throughout each of the related objects.

### BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates a display screen capture illustrating multiple placement of designated icon with persistent color scheme.

Figure 2 illustrates an item set graph wizard with the designated icon with persistent color scheme of figure 1.

Figure 3 illustrates a wizard summary page with graphics incorporating the designated icon and persistent color scheme of figure 1.

Figure 4 illustrates a notebook graphical user interface with the designated icon with persistent color scheme of figure 1.

Figure 5 illustrates an item set graph with the designated icon with persistent color scheme of figure 1.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

While this invention is illustrated and described in a preferred embodiment, the device may be produced in many different configurations, forms and materials. There is depicted in the drawings, and will herein be described in detail, a preferred embodiment of the invention, with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and the associated functional specifications of the materials for its construction and is not intended to limit the invention to the embodiment illustrated. Those skilled in the art will envision many other possible variations within the scope of the present invention.

Object-oriented graphical user interfaces (GUIs) represent objects in the interface that are of interest to users. Users complete various tasks on these objects such as creating new objects, organizing objects, and editing existing objects. This invention uses a specific color and graphical symbol scheme to tie together the interface controls and displays (windows, dialogs, buttons) that allow the user to control, organize, create, and display these objects.

In various applications, it may be necessary to develop many instances of an object. For example, in the visualization of data mining results, the objects represent types of displays (e.g., a Item Set graph, a Rules graph, a Distribution graph, etc.), and each instance represents a different version of that display depending on parameters set by the user.

Figures 1-5 collectively illustrate, in the preferred embodiment of a graphical user interface, the persistence of a designated graphical symbol and associated color scheme is used in the representation of the family of displays and controls for an Item Set graph on the desktop, its containers, properties notebooks, wizards, and the application tool bar. The use of persistent symbols and colors schemes enables the user to quickly determine the particular family or families of graphical user interfaces being used at any one moment.

Figure 1 illustrates a GUI **100** including: Toolbar **104**, Projects container **101**, Contents of folder container **102**, and Work Area container **103**.

5 In the present invention, a static icon and color scheme is generated by a visual designer for each graph type. The icons and color schemes are placed on the objects and their folders to assist the user in making a visual relationship with the particular family. One instantiation of one of those types, a Item Set graph **112** named "dpw", is displayed in the Workarea container **103**. This instantiation has a specific icon and color scheme. The icon and color scheme are displayed on its large folder icon **111** in the Contents of Folder container **102** and on its small folder icon **110** displayed in the Projects container **101**. It is this retention of persistent icon characteristics and coloring scheme that provides a user immediate recognition of related files of similar type. The color tracking function enables low level following of related objects without an understanding of the exact underlying connections and hierarchy. The toolbar **104** contains a button that also retains a facsimile of the icon and color scheme **113** that the user can use to create a new instance of an item set graph.

10  
15 Figure 2 illustrates GUI screen capture **200** of an item set wizard used to create an item set graph **112** which is placed within the item set parent folder **110/111**. As with each object/sub-object created within this family, the titlebar includes the preselected icon and color scheme **210** as a visual aid to the user for an immediate recognition of the family presently being used.

20 Figure 3 illustrates an GUI screen capture **300** of an item set graph wizard summary page which displays the parameters chosen during the implementation of the



wizard and to be ultimately used to display data within the item set graph **112**. As with each object/sub-objects created within this family, the title bar includes the preselected icon and color scheme **310** as a visual aid to the user for an immediate recognition of the family presently being used. In addition, the preselected icon and color scheme **320** is shown to be incorporated with a graphics section **330** of the screen capture.

Figure 4 illustrates an GUI screen capture **400** of a properties notebook for the item set graph wizard shown in figure 2. As with each object/sub-objects created within this family, the title bar includes the preselected icon and color scheme **510** as a visual aid to the user for an immediate recognition of the family presently being used.

Figure 5 illustrates an GUI screen capture **500** of an item set graph used to display data within the item set graph **112** created using the item set graph wizard shown in figure 2. As with each object/sub-objects created within this family, the title bar includes the preselected icon and color scheme **510** as a visual aid to the user for an immediate recognition of the family presently being used.

The above icons and color schemes and the described functional elements are implemented in various computing environments. For example, the present invention may be implemented on a conventional IBM PC or equivalent, multi-nodal system (e.g. LAN) or networking system (e.g. Internet, WWW). All programming, mining algorithms, GUIs, display panels and dialog box templates, metadata and data related thereto are stored in computer memory, static or dynamic, and may be retrieved by the user of the Intelligent Mining system in any of: conventional computer storage, display

(i.e. CRT) and/or hardcopy (i.e. printed) formats. The programming of the present invention may be implemented by one of skill in the art of object-oriented programming.

### CONCLUSION

5 A system and method has been shown in the above embodiments for the effective  
implementation of a persistent iconic and color scheme visual cue for relating various  
objects within the same application. While various preferred embodiments have been  
shown and described, it will be understood that there is no intent to limit the invention  
by such disclosure, but rather, it is intended to cover all modifications and alternate  
10 constructions falling within the spirit and scope of the invention, as defined in the  
appended claims. For example, the present invention should not be limited by  
software/program, computing environment, specific computing hardware and specific  
iconic color or symbol schemes. In addition, the specific chosen icons are representative  
of the preferred embodiment and should not limit the scope of the invention. Various  
15 icons and color schemes can be selected to be persistent throughout any related GUIs.

## CLAIMS

1 1. A computer-based method of visually delineating lineage between related graphical  
2 objects comprising:

3 creating a graphic symbol, said graphic symbol having a specified pattern, and  
4 associating it with at least a first graphical object;

5 designating one or more color attributes for said graphic symbol;

6 displaying one or more related graphical objects;

7 retaining said created graphic symbol, its specified pattern and color attributes  
8 within said one or more displayed related graphical objects, and

9 wherein said one or more objects are recognizable as related to said first objects  
10 by the persistence of said specified graphic symbol pattern and designated colors.

11 2. A computer-based method of visually delineating lineage between related graphical  
12 windows as per claim 1, wherein said created graphic symbol, its specified pattern and  
13 color attributes is retained within a visible portion of one or more related objects.

1 3. A computer-based method of visually delineating lineage between related graphical  
2 windows as per claim 1, wherein said created graphic symbol, its specified pattern and  
3 color attributes is retained within a graphical image visible within one or more or said  
4 related objects.

1 4. A computer-based method of visually delineating lineage between related graphical  
2 windows as per claim 1, wherein said first and one or more of said related objects are  
3 located within a single graphical user interface.

1 5. A computer-based method of visually delineating lineage between related graphical  
2 windows as per claim 1, wherein said graphic symbol and persistence of color between  
3 said first and second objects provides user assistance when traversing a series of  
4 graphical templates.

1 6. A computer-based method of visually delineating lineage between related graphical  
2 windows as per claim 1, wherein said group of related objects comprise any of:  
3 graphical windows, toolbars, rulers, wizards, titlebars, tables and icons.

1 7 A computer-based method of delineating lineage between a first object and a related  
2 object comprising:

3 creating an icon representing a first object;

4 designating at least a color scheme for said icon;

5 creating a second object related to said first object;

6 retaining said icon and color scheme of said first object within a visible area of

7 said second related object, and

8 wherein said second object is recognizable as related to said first object by the  
9 persistence of said icon and color scheme.

1 8. A computer-based method of delineating lineage between a first object and a related  
2 object as per claim 7, wherein said first and second objects are located within a graphical  
3 user interface.

4 9. A computer-based method of delineating lineage between a first object and a related  
5 object as per claim 7, wherein the persistence of said icon and color scheme between said  
6 first and second objects provides user assistance when traversing a series of graphical  
7 templates.

8 10. A computer-based method of delineating lineage between a first object and a related  
9 object as per claim 7, wherein said related objects comprise any of: graphical windows,  
10 toolbars, rulers, wizards, title bars, tables and icons.

1 11. A computer-based method of delineating lineage between a first object and a  
2 related object as per claim 7, wherein said first and one or more of said related objects  
3 are located within a single graphical user interface.

1 12. A computer-based method of graphically illustrating a progressive relationship  
2 between a series of related graphical objects comprising:

3 creating one or more icons for a first graphical object;

4 creating a color scheme for said one or more icons;

5 including at least one of said one or more icons and associated color scheme  
6 within said first graphical object;

7 progressing through a series of graphical objects related to said first graphical  
8 object, said one or more related graphical objects to reflect an evolution of progression  
9 of development of said first graphical object, and  
10

11 wherein said progression retains said at least one of said one or more icons and  
12 associated color schemes within each of said related graphical objects.

13 13. A computer-based method of graphically illustrating a progressive relationship  
14 between a series of related graphical objects as per claim 12, wherein the persistence of  
15 said icon and color scheme between said first and second objects provides user assistance  
16 when traversing a series of graphical templates.

1 14. A computer-based method of graphically illustrating a progressive relationship  
2 between a series of related graphical objects as per claim 12, wherein said related objects

collectively comprise a user assistance wizard.

15. A computer program product for use with a graphics display device, said computer program product comprising:

a computer usable medium having computer readable program code means included in said medium:

said computer readable program code means embodying a method for:

creating a graphic symbol, said graphic symbol having a specified pattern, and associating it with at least a first graphical object;

designating one or more color attributes for said graphic symbol;

displaying one or more related graphical objects;

retaining said created graphic symbol, its specified pattern and color attributes within said one or more displayed related graphical objects, and

wherein said one or more objects are recognizable as related to said first objects by the persistence of said specific graphic symbol pattern and designated colors.

16. A computer program product for use with a graphics display device, said computer program product as per claim 15, wherein said created graphic symbol, its specified pattern and color attributes is retained within a visible portion of one or more related objects.

1 17. A computer program product for use with a graphics display device, said computer  
2 program product as per claim 15, wherein said created graphic symbol, its specified  
3 pattern and color attributes is retained within a graphical image visible within one or  
4 more or said related objects.

1 18. A computer program product for use with a graphics display device, said computer  
2 program product as per claim 15, wherein the persistence of said graphic symbol and  
3 designated one or more color attributes between said first and second objects provides  
4 user assistance when traversing a series of graphical templates.

1 19. A computer program product for use with a graphics display device, said computer  
2 program product comprising:

3 a computer usable medium having computer readable program code means  
4 included in said medium:

5 said computer readable program code means embodying a method for:

6 creating one or more icons for a first graphical object;

7 creating a color scheme for said one or more icons;

8 including at least one of said one or more icons and associated color scheme  
9 within said first graphical object;



progressing through a series of graphical objects related to said first graphical object, said one or more related graphical objects to reflect an evolution of progression of development of said first graphical object, and

wherein said progression retains said at least one of said one or more icons and associated color schemes within each of said related graphical objects.

20. A computer program product for use with a graphics display device as per claim 19, wherein said related objects collectively comprise a user assistance wizard.

21. A computer-based system with visually related graphical objects comprising:

one or more graphic symbols retained in computer storage, each of said one or more graphic symbols having a specified pattern and association with at least a first graphical object;

one or more color attributes designated for each of said one or more graphic symbols;

a display visually instantiating one or more graphical objects related to said first graphical object;

said one or more graphic symbols, specified pattern and color attributes replicated within a visual space of said displayed one or more graphical objects related to said first object, and

wherein said one or more related objects are visually recognizable as related due to the persistence of said specified graphic symbol pattern and designated colors.

- 1           22.     A computer-based system with visually related graphical objects as per claim 21,  
2                 wherein the persistence of said icon and designated colors between said first and  
3                 related objects provides user assistance when traversing a series of graphical  
4                 templates.

COLOR AND SYMBOL CODED VISUAL CUES FOR RELATING SCREEN  
ITEMS TO EACH OTHER

ABSTRACT OF THE DISCLOSURE

The present invention provides an initial graphic symbol and color scheme to represent a particular application. As a user traverses related objects belonging to the same family, the initial graphic symbol and color scheme is persistent throughout each of the related objects.

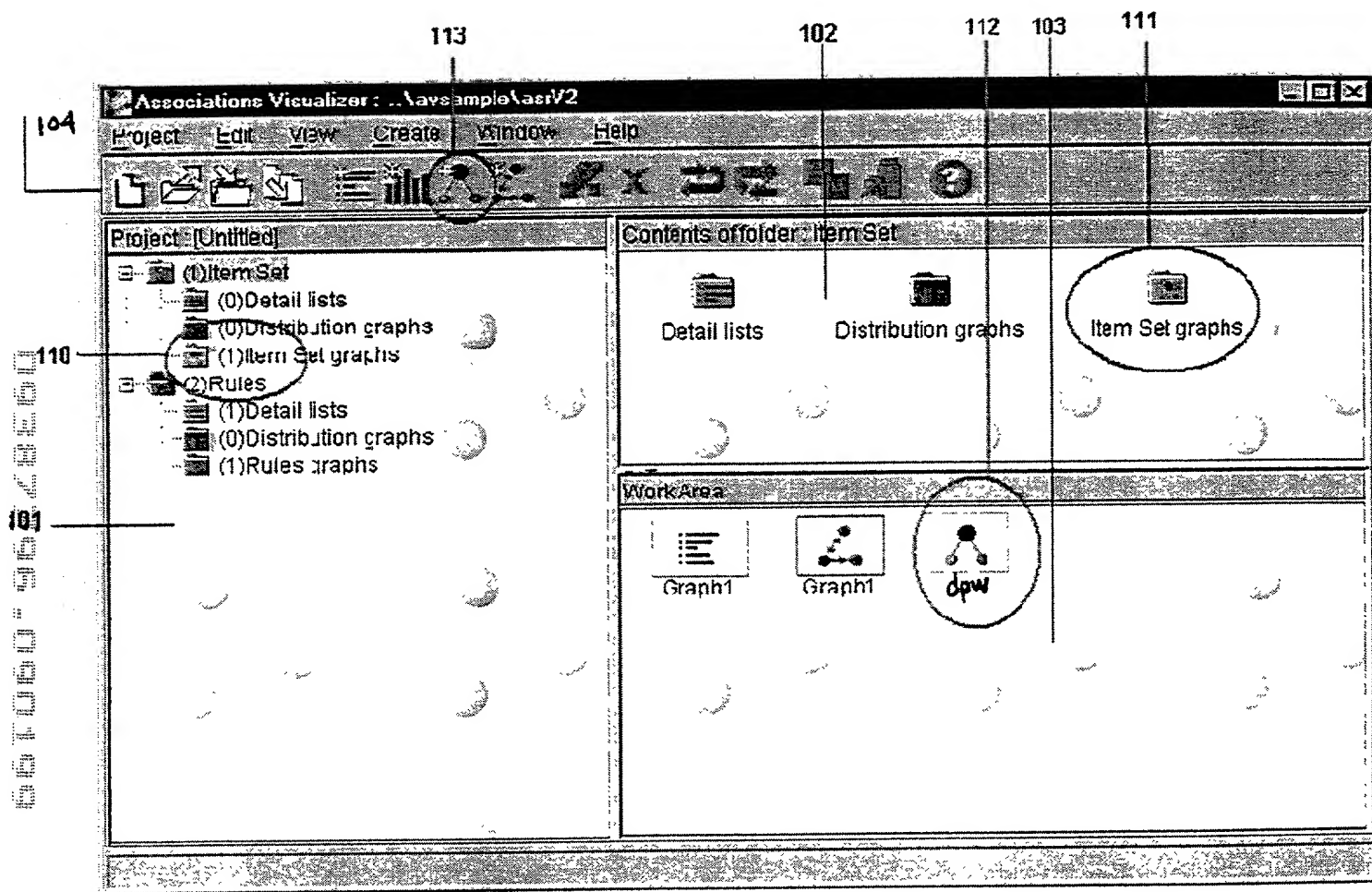


Figure 1.

(100)

Figure 2

(200)

310 340 320 330

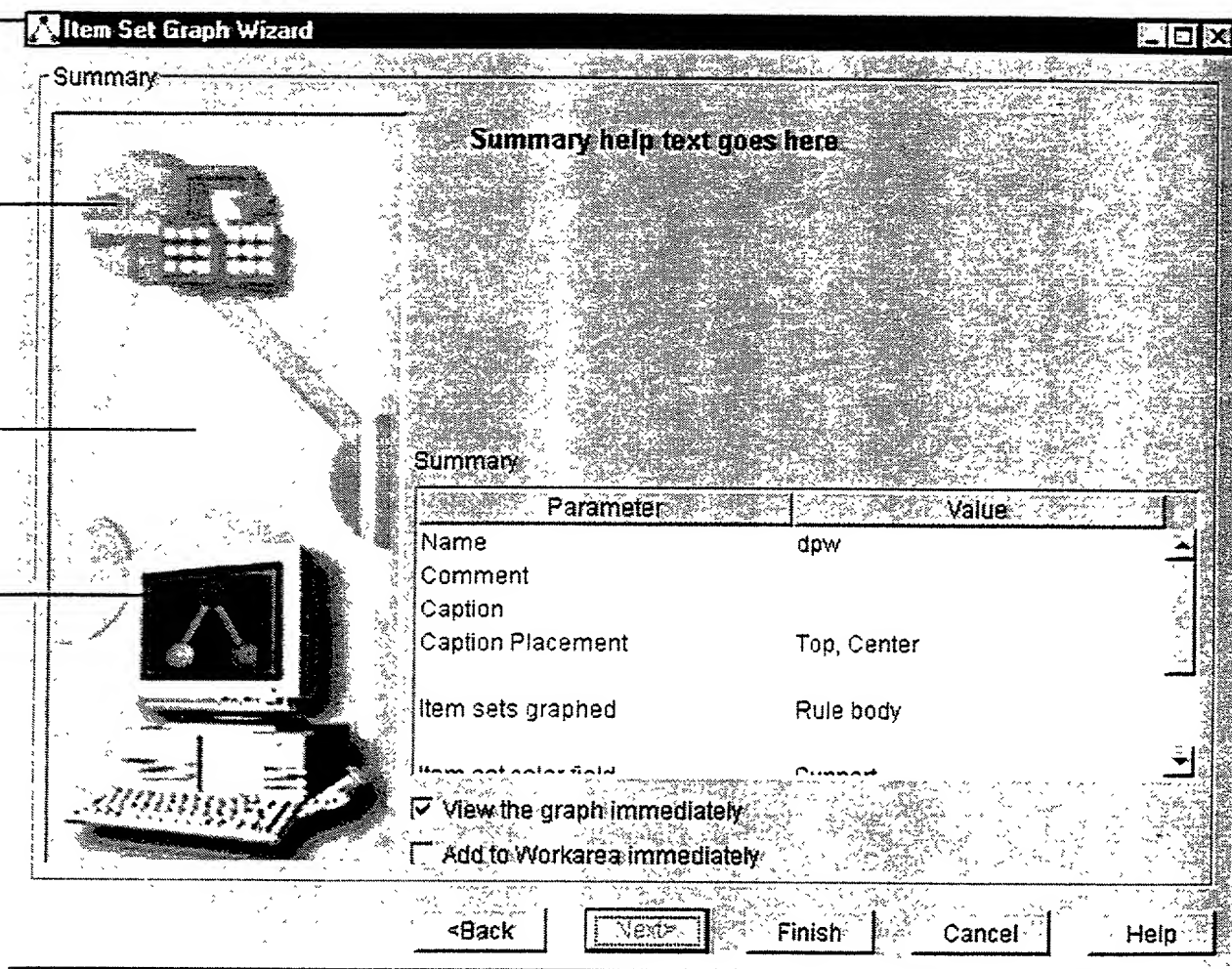


Figure 3

(300)

410

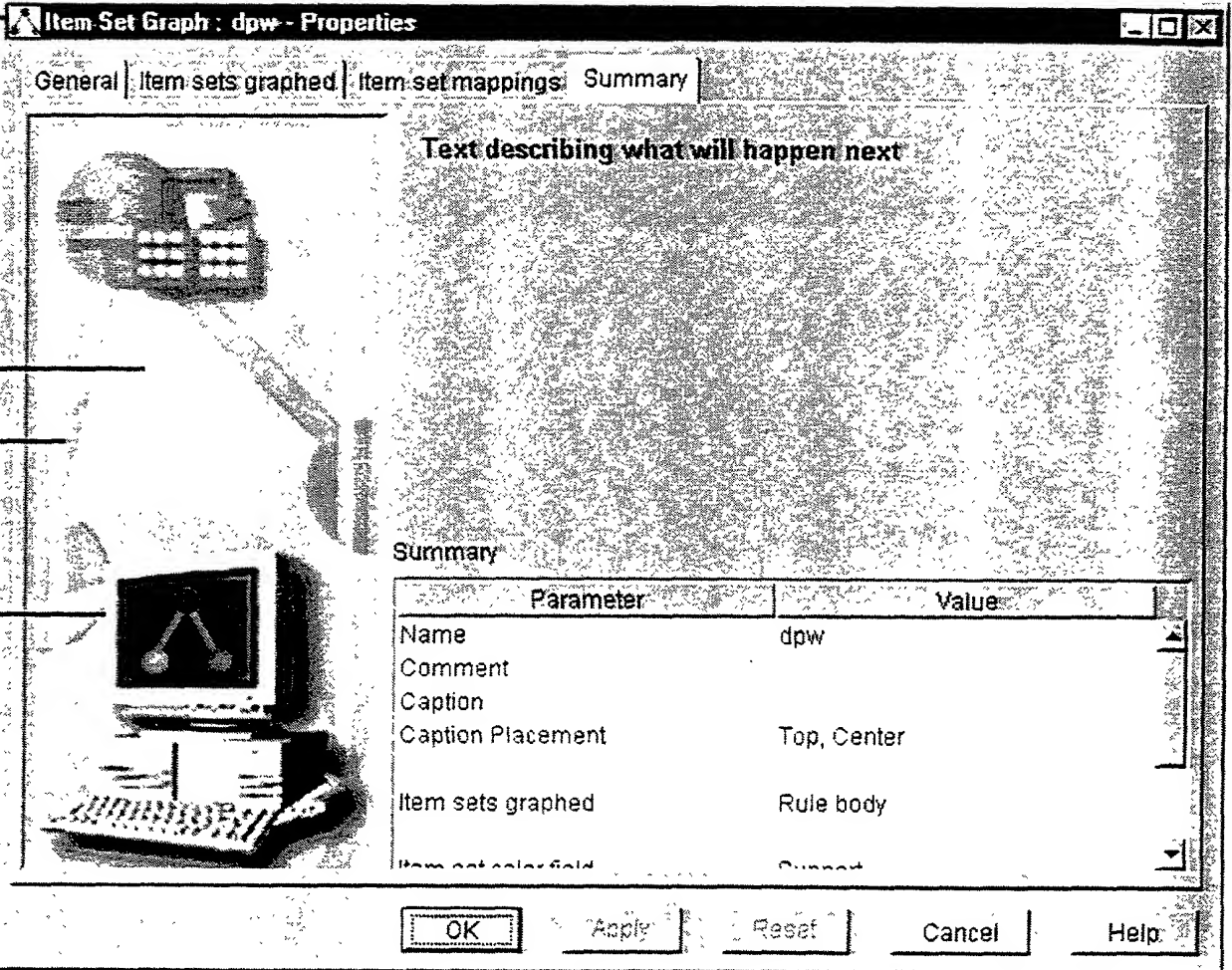
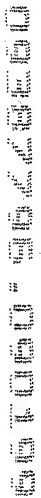


Figure 4

(400)



(500) ↗



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

DECLARATION FOR PATENT APPLICATION

INVENTOR(S): CATHERINE CHRISTENSEN, RICARDO L.GONZALEZ, DAVID BROOKS

HAMILTON AND DAINA EDVINA PUPONS WICKHAM

TITLE: COLOR AND SYMBOL CODED VISUAL CUES FOR RELATING SCREEN ITEMS  
TO EACH OTHER

DOCKET NO. : ST9-99-084/PA-1992108

TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS:

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled, Color and Symbol Coded Visual Cues for Relating Screen Items to Each Other, the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patents or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Applications				
			Priority Claimed:	Y/N
Number	Country	Day/Month/Year Filed		

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the National or PCT international filing date of this application.

Application No.	Filing Date	Status-patented, pending, abandoned
Application No.	Filing Date	Status-patented, pending, abandoned

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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